

SEQUENCE LISTING

SEQ ID NO: 1 - hCARa sequence ACCESION CAA83016

1 MASREDELRN CVVCGDQATG YHFNALTCEG CKGFFRRTVS KSIGPTCPFA

GSCEVSKTQR

5 61 RHCPACRLQK CLDAGMRKDM ILSAEALALR RAKQAQRRAQ QTPVQLSKEQ
EELIRTLGLA

121 HTRHMGTMFE QFVQFRPPAH LFIHHQPLPT LAPVLPLVTH FADINTFMVL
QVIKFTKDLP

181 VFRSLPIEDQ ISLLKGAAVE ICHIVLNTTF CLQTQNFLCG PLRYTIEDGA

10 RVGFQVEFLE

241 LLFHFHGTLR KLQLQEPEYV LLAAMALFSP DRPGVTQRDE IDQLQEEMAL
TLQSYIKGQQ

301 RRPRDRFLYA KLLGLLAELR SINEAYGYQI QHIQGLSAMM PLLQEICS

15 SEQ ID NO: 2 - mCAR β 1, mCAR1, ACCESION AAC53349

1 MTAMLTLTM ASEEEYGPRN CVVCGDRATG YHFHALTCEG CKGFFRRTVS
KTIGPICPFA

61 GRCEVSKAQR RHCPACRLQK CLNVGMRKDM ILSAEALALR RARQAQRRAE
KASLQLNQQQ

20 121 KELVQILLGA HTRHVGPLFD QFVQFKPPAY LFMHHRPFQP RGPVLPLLTH
FADINTFMVQ

181 QIIKFTKDLP LFRSLTMEDQ ISLLKGAAVE ILHISLNTTF CLQTENFFCG
PLCYKMEDAV

241 HAGFQYEFLE SILHFHKNLK GLHLQEPEYV LMAATALFSP DRPGVTQREE

25 IDQLQEEMAL

301 ILNNHIMEQQ SRLQSRFLYA KLMGLLADLR SINNAYSYEL QRLEELSAMT
PLLGEICS

SEQ ID NO: 3 mCAR β 2 mCAR2, ACCESION AAC53350

30 1 MTAMLTLTM ASEEEYGPRN CVVCGDRATG YHFHALTCEG CKGFFRRTVS
KTIGPICPFA

61 GRCEVSKAQR RHCPACRLQK CLNVGMRKDM ILSAEALALR RARQAQRRAE
KASLQLNQQQ

121 KELVQILLGA HTRHVGPLFD QFVQFKPPAY LFMHHRPFQP RGPVLPLLTH
FADINTFMVQ
181 QIIKFTKDL P LFRSLTMEDQ ISLLKGAAVE ILHISLNTTF CLQTENFFCG
PLCYKMEDAV
5 241 HAGFQYEFLE SILHFHKNLK GLHLQEPEYV LMAATALFSP GFCMQS

SEQ ID NO: 4 – murine CAR β genomic nucleotide sequence – Section A

AAAATTACCCAACATAGATTATCTAATGTAATTCTATCTGCAGAACATCCAA
ATACTTGGAAATTATTTNTTGTTGTAGCTGTTGAATGTAACATATATTCA
10 AAAAAACTCTTCATGGTATGAGCATTGGCAAGCTATGAGGATACCTACTTCT
GGTTATTTACTAAAAGTTGATAGCCAGGCAGTGGCACACACCTTAATCCCA
GCACTTGGGAGGCAGAGGCAGGTGGAATTATGAGTTGAGGCCAGCCTGGTCTA
CAGAGTGGGTCAAGGTCAAGCCAGGGCTACACAGAGAAACCTGTCTCAAAAG
AAGGAGGAGGAGGAGGAAAGAGGAAGAGGAGGAAGAAGATCTTGTGAG
15 ATAGCATACAGTAAAAATTCCGTTCTTAGCAACTCAGTTGTGTCACATGATG
TCTTCTGGAAGCTGTCTTGAGCAGACATGTATGTTATCACAAATAGAAAGC

SEQ ID NO: 5 – murine CAR β genomic nucleotide sequence – Section B

AAAGAGGTCACTCAGGCTTGGCAGCAAGTGCCTTGCCTACCGAGTCCTTACACCA
20 GCTCCACCCTGGTTTTGAGACAGTCTCCCACTGGACTGGATTTCAGCAAGAAAG
CTAGGCTTGCCTTCTGTCTGCTCCTGGCATTGAATTATGAGTTGTCAC
CGTGCCATTAAAAATGTAGGTTCTAGGAATTAAACTCGGCTCGGTGCTTA
TATAGTGAGTACTTACAGAGGGAGTCACCTGCCAGCACCTAGAAATTCACTTT
ATTCAATCCCAGTCTCCCCACGTAAGAAAGTGGATCCCTCTAGTGTACACC
25 TAAGTTCTTAGTGGATACCGAAGTCTTTTTAACAGATCTGGGGCTCAGAA
GGCAAGAGCTCTGGCAGAGGATTAACCTCAATTCTAGTACTCAACTGCCAG
CTCATAACTGCCTATAACTCTAGTCCCAGAAGATCAGACATTGCTCTGATCT
GTGGGTACTAGGTATATACATTAAAAAAATCAATAAAAAATTAAAAAAGA
AAAGAAAAAGAAAGAAAGAAAATCCTTGGAGCCTGGTATAATTGTTAGCT
30 ACCTTTTTTTTTTTTTTTTTTACCATTTGCAAACGTGCACGTAAAAAG
CTTGCCATCTCTCCATTGTTCTGGTTATTCAAGGATCCATGCAAAAGGGGA
GTGTAGATTAGCTAAAGCTACCCACAGGGAAATCCTCCAGGAGTCTAGTAA
GCAGCAGCTTTAATGAGTCATGAGGTCTGGCCCTCCCCATGCCACCAACC
AACACTCTGGGCATGCTAGGAACCCCCACCCCCACACCCACACCCAGGT

CTTGCCCTGGTCCAGAGTCTGGTCCTACCTACATATGGCACCGAGGATAACCT
AGAGGCCCATGCAAGAGAAGGCCCTGTTCCAGCACTAACGGACCGCAGTC
CTTAATTCTGGAGTCAGATCTCAAGGAAGCAGGGTCAGCGAGGAGGC
CTGGGAGAGGAGGCATCCTACACCCGATCTGTGGCCTGCTGCTAAGGAAA
5 CAGGTAGGTAAATCCGTTGGAGGCCAGAGACAAAAAGCAACATTTCGTTTAAT
GTCCTCAGTGCTGGGAGGCCGGTGTCAAGCTGGCAGTCTGGGAAGAGATTC
GTAGAGGAGAGAGAAAGAGACTATGGCCAGTGTGATTCTCAACTCCTCCC
ACATTCAAGGAGACCATGACAGCTATGCTAACACTAGAAACATGCCAGTGAAG
AAGAATATGGCCGAGGAACGTGTGGTGTGGAGACGGGCCACAGGCTATC
10 ATTTCAACGCCCTGACTTGTGAGGGCTGCAAGGGCTCTCAGGTGAATGCTCC
TCCCCAACAGAAACAACCCGACATTCTATCAGTCCACCTTAAACACTGGTAC
ACCTCCAAGTTATAATCCTCTGCAGCTAACGCTGACTGCCAGTGTCTAGCACT
CTCAATCTGCTGACCACAACCGCAGTGTGAAACTGGTACCTAATGACAAGGCA
GGTTAACCATTTGCTCCAGAGACAGAGCTAACAGAGTCAGAACACTTGTGAGC
15 ACACACTACCTGCAAAGCACCAGAGATGATTGCCACACGAGGGITCCTGAGTAAC
CTTGTGTTCTCATGAAAACGCTCCAACCTCTGAAGACCTTGAGCACAGCTC
AGATGAGTCTGTTAAATCGATCC

SEQ ID NO: 6-- murine CAR β genomic nucleotide sequence – Section C

20 TGCAATTGCTTCTACTGAAGTGTATCACAGATGAATATGAGATCGACAGAAAGTG
TGCAGGGATCCCCCTGCCATCTGGAAACACTTAATTCAATGAAGTCCAAGGAA
GCCTCAGAAACTCTTCTTCCTCCTCCTTCTATCTGGGAGGTGGAGTGGCC
CAACTGAAGGGATGGCTGAAAGGTGCTCGCTGCTGTTCTAACAGCTTGTATC
TCTCTGCCTGACACAGTGTACTGTCAAGCAGAACGCTGGCATTGCGCGAGCC
25 AGACAGGCACAGCGCGGGCAGAGAAAGCATCTTGCAACTGAATCAGCAGCAG
AAAGAACTGGTCCAGATCTCCTCGGGGCCACACTGCCATGTGGGCCATGT
TTGACCAGTTGTGCAAGGTGAGAACCTAACAGGATGTGACCTGGTAC
CTGAGGAGGTAAACCCACAGAAGAAGGCTATGCCCTGATGGAGGACA

30 SEQ ID NO: 7- Sensor peptide sequence

ILRKLLQE

SEQ ID NO: 8- Hamster CAR nucleotide sequence

CTTGTTCAGGGACCAAGGACAATCCCTAATTCTGCAGTCAGCTGAGACCACA
AGGAAAGCAGGGTCATCGTGGAGGCTGGAGACAGGCATCTCATACCAGATTT
GTGACCTGCGTGTGTCATACTGCCAAGAGAACAGGGAGACCATGACAGCTACG
CTAACACTCGAAACCAAGGCCAGTGGAGAGGAATATGGACCGAGGAACGTGTG
5 GTGTGTGGAGACCGAGGCCACGGGCTACCATTCATGCCCTGACTTGTGAGGGCT
GCAAAGGCTTCTCAGACGAACGTGCAGCAAAACCATTAGTCCCATCTGTCCATT
TTCTGGAAGCTGTGAGATCAGCAGAGCCCAGAGACGCCACTGCCAGCCTGCAG
GTTGCAGAAGTGCCTAAACGCTGGCATGAGGAAAGACATGATACTGTCAGCAGA
AGCCCTGTCGTTGGCGAGCCAGGCAGGCACAGCGCCGGGACAAAAAGCTC
10 CGTGAGATGACTCAGGAGCGGAAGGAGCTGGTCCAGACCCCTATAGGGGCCA
CACCCGCCACATGGGCCCATGTTGACCAGTTGTGAAGCTCAGGCCAGCT
TACCTGTTACCCATCACCGGCCCTCTCCCCGCTGGCCCCCGCGTTACCACT
GCTCACACACTTGCAGATGTCAACACTTCATGGTGCAAGCAGATTATCAAGTTC
ACCAAGGAACTGCCCTTTCGTCCCTACCGTGAGGACAGATCCCTTC
15 TCAAGGGAGCAGCTGTGAAATATTGCATATCTCACTCAACACTACTTCTGTCT
TCAAACACAGAATTCTCTGTGGGCCACTTGCTACAAAATGAAAGACGCAGCC
CACGCAGGGTCCGGTACGAATATGTGGAGTTGATCTTCGCTTCCATGGACAC
TGAAGCGACTGCAAGCTCCAAGAGCCTGAGTATGTCATGACTGCCATGGCCCT
CTTCTCTCCTGACAGGCCGTAATCACCCAGAGAGAAGAGATTGACCAGCTGCA
20 AGAGGAGATGGCACTGATTTGAAACAACATATTGAAACAGCAGCCAGGCC
CCAGAGTCGGTTCTGTACGCAAAGCTGATGGCCTGCTGGCTGAGCTCCGGAGC
ATAAACAAATGCATACTCATATGAAATACGGCGATCCAGGGACTGTCCGCTATG
ATGCCACTACTTGGGAAATCTGCAGCTGAGGCTCAGGCTGCCCTCCCCAG
GGCCCTGGGATTCAATTGGACTGGAAAGGGGAAATTGCTGAGCTAAAAGGAGCT
25 CAGTGACAGCAAAACACTGGACAGTNGGAAAAAAANNNNNNNNNNNNAAA
AGCGACCTGCCGGCGGCCGTTCAGC

SEQ ID NO: 9- Predicted amino acid sequence of hamster CAR

30 MTATLTLETKASGEEYGPRNCVVCGRATGYHFHALTCEGCKGFRRRTVSKTISPICP
FSGSCEISRAQRHCPACRLQKCLNAGMRKDMILSAEALSLRARQAQRRAQKASV
QMTQERKELVQTLIGAHTRHMGPMFDQFVKLRPPAYLFTHRPSSPLVPPALPLLTH
FADVNTFMVQQIJKFTKELPLFRSLPVEDQISLLKGAAVEILHISLNTFCLQTQNFFCG
PLCYKMEDAAHAGFRYEYVELIFRFHGTLKRLQLQEPEYVLMTAMALFSPDRPGITQ

REEIDQLQEEMALILNNYIMEQQPRPQSFLYAKLMGLLAELRSINNAYSYEIRRIQG
LSAMMPPLLGEICS

SEQ ID NO: 10 - Oligo 2930

5 CCATAAACGTGTTGATATCTGCAAAGTGTGCGAGCAGAGGCAACACGGGGCCCC
GAGG

SEQ ID NO: 11 - Oligo 2931

CTCTACAGCCTCCAGCCTATCTGTTCATGCATCACCGGCCTTCCAGCCTCGGGC
10 CC